SEVERE WEATHER AWARENESS WEEK MARCH 3-9, 2002

Severe Weather Awareness Week in Indiana is March 3-9, 2002

Governor Frank O'Bannon has proclaimed March 3–9, 2002 as Severe Weather Awareness Week in Indiana. In keeping with the 2002 National Weather Service communications theme *Working Together to Save Lives*, the National Weather Service, in conjunction with the Indiana State Police, Indiana State Emergency Management, the Indiana School System, the broadcast media across Indiana, and amateur radio operators will conduct a statewide test of communications systems on Wednesday March 6 between 200 and 230 P.M. EST and between 700 and 730 P.M. EST.

The goals of Severe Weather Awareness Week are to educate about the hazards of severe thunderstorms and tornadoes, to help everyone be prepared when severe weather strikes, and to have an understanding of severe weather terms and tornado safety rules.

Daily statements will be issued on newswires and NOAA Weather Radio during the week. The Northern Indiana National Weather Service Office (WFO IWX) and surrounding National Weather Service offices will be available throughout the week for interviews or questions. Tornado drill details can be found on page 2 of this publication.

Sources of Weather Data

National Weather Service Doppler Radar - Base Reflectivity, Composite Reflectivity, and One Hour and Storm Total Precipitation products are now available on the Internet. Visit your local NWS office homepage and look for the Radar link or go to http://www.crh.noaa.gov/radar.

Advanced Hydrologic Prediction Services (AHPS) - AHPS is a web-based suite of accurate and information-rich forecast products containing: current and forecast flow/stage, current and forecast precipitation, impact, and historical information. Visit your local NWS office homepage and look for the River Info/AHPS link.

Emergency Managers Weather Information Network (EMWIN) - NWS forecasts, warnings, and other weather-related information can be obtained and displayed on a PC in nearly real time through EMWIN. For more information go to http://iwin.nws.noaa.gov/emwin/index.htm.

SPRING, 2002



INSIDE THIS ISSUE:

Tornado Drill	2
Severe Weather Stats	2
Severe Weather Terms	3
Tornado Facts/Safety	4
Flood Facts/Safety	5
Lightning Facts/Safety	5
NOAA Weather Radio	6
Lightning Safety Week	6
Internet Sites	7

NWS Contacts

NWS Northern Indiana WCM Steve Eddy 574-834-1104 x726 Steven.Eddy@noaa.gov

NWS Indianapolis WCM David R. Tucek 317-856-0368 David Tucek@noaa.gov

Wanted Severe Weather Spotters

For a training session near you, click on the 2002 Calendar link on the WFO IWX Internet Homepage.

SPRING, 2002 PAGE 2

How the Drill Will Work

The drill will consist of **Test Tornado Warnings** issued by WFO IWX and surrounding National Weather Service offices.

Two drills will be conducted on Wednesday, March 6. The first drill will take place between 200 and 230 P.M. EST, with WFO IWX and surrounding NWS offices each issuing warnings for their respective areas of responsibility in Indiana. The second drill will duplicate the first drill, but will be conducted between 700 and 730 P.M. EST.

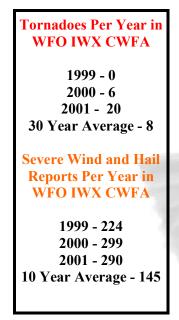
The test warnings will be distributed just like actual tornado warnings through the National Warning System (NAWAS), the NOAA Weather Wire Service, news wire services, and broadcast live on NOAA Weather Radio (NWR) using the Tone Alert and Emergency Alert System (EAS). Cable television, broadcast television stations, and radio stations should either simulcast the test warning messages from NWR or EAS, or have the test warning messages read by radio and television broadcasters.

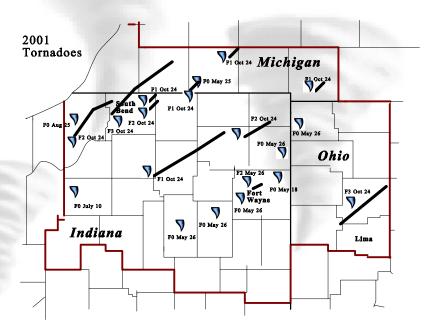
Please note, for EAS, WFO IWX will use the KW I (Kequired Vicency) code for both the 200 to 230 P.M. EST drill and the 700 to 730 P.M. EST drill TORNADO Weather Service offices may use the RMT and/or RWT codes. To ensure warning receipt, make sure your EAS equipment can accept both the RMT and **RWT** codes from the NWS.



If weather postpones the test, the make-up drill day is Thursday, March 7th.

If you have any problems with the drill (e.g. you did not hear the tone alert or the broadcast) and you are within the WFO IWX County Warning and Forecast Area (CWFA), please contact Steve Eddy by phone at 574-834-1104 x726 or via E-mail at Steven. Eddy@noaa.gov. For surrounding areas, contact your local National Weather Service office.





Severe Weather Terms and Definitions

Warning — A product issued by the NWS indicating that a particular weather hazard is either imminent or is occurring. A warning indicates the need to take immediate action to protect life and property. Typical warnings include *tornado warning*, *severe thunderstorm warning*, and *flash flood warning*.

Watch — A product issued by the NWS indicating that conditions are favorable for a particular weather hazard. A watch is usually issued for a time period of several hours and indicates a need for planning, preparation, and an increased awareness of changing weather conditions. Typical watches include: *tornado watch*, *severe thunderstorm watch*, and *flash flood watch*.

Tornado — A violently rotating column of air in contact with the ground, descending from the base of a severe thunderstorm.

Severe Thunderstorm — A thunderstorm that produces a tornado, damaging winds of 58 mph or higher, and/or hail at least three-quarters of an inch in diameter.

Flash flood — A flood which happens within a few hours after a heavy rainfall or from the failure of a dam, levee, or ice jam.

Flood — A flood occurs when water overflows the confines of a stream or body of water, or accumulates in poorly drained low-lying or urban areas.

Funnel cloud — A violently rotating column of air that does not reach the ground. If the funnel cloud reaches the ground, it becomes a tornado.

Straight line winds — Thunderstorm wind that produces damage with little indication of any rotation, as opposed to tornado-produced damage that does exhibit a rotational damage pattern.

Downburst — A strong downdraft that exits the base of a thunderstorm and hits the earth's surface, resulting in strong gusty winds that may cause property damage.

Squall line — Any narrow band of thunderstorms...sometimes as much as several hundred miles long.

Gust front — The leading edge of a mass of cool, gusty air that flows ahead of a thunderstorm.

Waterspout — A rotating column of air descending from the base of a cumulus cloud over a large body of water, that reaches the water surface.

Cold air funnels — Weak funnel clouds that typically remain aloft. They form in cold unstable air masses and are not generally associated with severe thunderstorms.

PAGE 4 SPRING, 2002

Tornado Facts

- ∇ Tornadoes can occur at any time of the year
- ∇ Tornadoes are most likely to occur between 300 and 900 PM, but have been known to occur at all hours of the day and night
- ∇ The average tornado moves from southwest to northeast, but tornadoes have been known to move in any direction
- ∇ The average forward speed is 30 mph, but may vary from nearly stationary to 70 mph
- ∇ Indiana averages 20 tornadoes and 4 tornado fatalities each year

Tornado Distribution and Characteristics

Weak Tornadoes (F0,F1)	Strong Tornadoes (F2,F3)	Violent Tornadoes (F4,F5)
∇ 88% of all tornadoes	∇ 11% of all tornadoes	∇ Less than 1% of all tornadoes
∇ Less than 5% of deaths	∇ Nearly 30% of deaths	∇ Approximately 70% of all tornado deaths
∇ Lifetime of 1-10+ minutes	∇ May last 20 minutes or longer	∇ Lifetime may exceed 1 hour
∇ Winds less than 110 mph	∇ Winds of 110-205 mph	∇ Winds greater than 205 mph

Tornado Facts for the WFO IWX CWFA

- ∇ An average of 8 tornadoes occur per year
- ∇ The peak month for tornado occurrence is June
- ∇ Nearly 90 percent of the tornadoes occur between noon and midnight.



In an average year, 1,200 tornadoes cause 70 fatalities and 1,500 injuries nationwide.

Tornado Safety Rules

	At Home		At School or Work		<u>In a Vehicle</u>
∇	Move to the interior of the low- est floor possible	∇	Move students quickly into interior hallways on the lowest	∇	Never try to outrun a tornado. They can change speed and direction without warning
abla	Stay away from windows Interior bathrooms offer excellent shelter	∇	Stay out of rooms with large free-span ceilings such as gym-	∇	Leave the vehicle and find nearby safe shelter
∇	Leave mobile homes immediately, and proceed to the nearest designated shelter	∇	nasiums and cafeterias Keep children at school beyond regular hours if severe weather is expected	∇	If no shelter is available, crouch in a ditch or ravine, cov- ering your head. Be wary of flash flooding.

Flood/Flash Flood Facts

- #1 weather-related killer in the United States...more than 140 fatalities each year
- Responsible for billions of dollars in damage each year

Most deaths occur at night and when people become trapped in automobiles vehicles to float.



A water depth of two feet will cause most

Flood/Flash Flood Safety

- If flooding is observed or a warning is issued, move to a safe area before access is cut off by flood water
- If advised to evacuate, do so immediately
- Never let children play near high water, storm drains, or viaducts
- Never drive through flooded roadways as the road bed may not be intact under the flood waters
- If the vehicle stalls, leave it immediately and seek higher ground
- Be especially cautious at night when it is more difficult to recognize flood dangers
- Do not camp or park your vehicle along streams and washes

Lightning Facts

- Responsible for 73 fatalities and 300 injuries each year nationwide
- Causes several hundred million dollars in damage to property annually
- Most lightning fatalities and injuries occur when people are caught outdoors in the summer months during the afternoon and evening

Lightning Safety

- Check the forecast before leaving for extended periods outdoors
- Watch for signs of approaching storms
- Postpone outdoor activities if thunderstorms are imminent
- If you can hear thunder, seek shelter in a building or car immediately
- Get out of boats and away from water
- Avoid using the telephone or other electrical appliances
- If caught outside, find a low spot away from trees, fences, and poles
- If you feel your skin tingle or your hair stands on end, squat low to the ground on the balls of your feet



Counting the number of seconds between a flash of lightning and the next clap of thunder, then dividing this number by 5, will determine the distance to the lightning in miles

30/30 Lightning

Rule: If after seeing lightning, you cannot count to 30 before hearing thunder, stay indoors for 30 minutes after hearing the last clap of thunder.

PAGE 6 SPRING, 2002



Voice of the National Weather Service

Specific Area Message Encoder (SAME) codes for programmable weather radios:

Northern Indiana

Adams 018001 Allen 018003 Blackford 018009 Cass 018017 Dekalb 018033 Elkhart 018039 Fulton 018049 Grant 018053 Huntington 018069 Jay 018075 Kosciusko 018085 Lagrange 018087 La Porte 018091 Marshall 018099 Miami 018103 Noble 018113 Pulaski 018131 St. Joseph 018141 Starke 018149 Steuben 018151 Wabash 018169 Wells 018179 Whitley 018183 White 018181

Northwest Ohio

Allen 039003 Defiance 039039 Fulton 039051 Henry 039069 Paulding 039125 Putnam 039137 Williams 039161 Van Wert 039171

Southwest Michigan

Berrien 026021 Branch 026023 Cass 026027 St. Joseph 026149 Hillsdale 026059

LIGHTNING SAFETY AWARENESS WEEK APRIL 28-MAY 4, 2002

Summer is the peak season for one of the nation's deadliest weather phenomena - lightning. Safeguarding U.S. residents from dangerous lightning is the goal of NOAA's new public awareness campaign - "Lightning Kills, Play it Safe." The campaign is designed to lower lightning death and injury rates and America's vulnerability to one of nature's deadliest hazards.

In the United States, an average of 73 people are killed each year by lightning. That's more than the annual number of people killed by tornadoes or hurricanes. Many more are struck, but survive. However, they often report a variety of long-term, debilitating symptoms, including memory loss, attention deficits, sleep disorders, numbness, dizziness, stiffness in joints, irritability, fatigue, weakness, muscle spasms, depression, and an inability to sit for long. Lightning also causes about \$5 billion dollars of economic loss each year in the U.S.

The vast majority of lightning casualties can be easily, quickly, and cheaply avoided if only the public new what to do.

The purpose of Lightning Safety Awareness Week is to increase awareness of lightning hazards and educate about lightning safety. To learn how to protect yourself, your loved ones, and your belongings, visit the Lightning Safety web page at: http://www.lightningsafety.noaa.gov.



Lake Michigan South Bend South Bend Angold Monticello Montice

For more information, visit the NOAA Weather Radio Web Site at http://www.nws.noaa.gov/nwr.

For special needs NOAA Weather Radio information, visit http://www.nssl.noaa.gov/~wood/NWR/spc-nds-nwr.

NWR Frequencies

Angola	162.425 MHz
Fort Wayne	162.550 MHz
Lima	162.400 MHz
Marion	162.450 MHz
Monticello	162.475 MHz
North Webster	162.500 MHz
Onondaga	162.400 MHz
Oshtemo	162.475 MHz
South Bend	162 400 MHz



Special needs NOAA Weather Radios designed to meet the needs of the deaf and hard-ofhearing are available.

Internet Sites and Contacts

National Oceanic and Atmospheric Administration (NOAA) http://www.noaa.gov





National Weather Service

http://www.nws.noaa.gov

National Weather Service Northern Indiana http://www.crh.noaa.gov/iwx

National Weather Service Indianapolis http://www.crh.noaa.gov/ind

National Weather Service Office of Meteorology Severe Weather Awareness Page http://www.nws.noaa.gov/om/severeweather

National Weather Service Office of Hydrology http://www.nws.noaa.gov/oh

Storm Prediction Center http://www.spc.noaa.gov

National Hurricane Center http://www.nhc.noaa.gov

NOAA Weather Radio http://www.nws.noaa.gov/nwr

> Skywarn http://www.skywarn.org

Indiana State Emergency Management Agency

Alden Taylor 317-232-3992

Indiana State Police

Mike Robbins 317-233-6055

E-mail - mrobbins@isp.state.in.us

Rex Ferrell

317-232-6187

E-mail - rferrell@isp.state.in.us

Indiana Department of Education

Director of School Traffic Safety - Pete Baxter 317-232-0890

E-mail - pbaxter@dew4.doe.state.in.us

Federal Emergency Management Agency http://www.fema.gov/mit





American Red Cross http://www.redcross.org/disaster/safety

Interactive Weather Information Network http://iwin.nws.noaa.gov/emwin/index.htm

Indiana State Emergency Management Agency http://www.in.gov/sema

Indiana State Police http://www.in.gov/isp

Indiana Department of Education http://ideanet.doe.state.in.us/safety

Climate Prediction Center http://www.cpc.ncep.noaa.gov

National Climatic Data Center http://lwf.ncdc.noaa.gov/oa/ncdc.html

Midwest Climate Center http://mcc.sws.uiuc.edu

Amateur Radio Emergency Services SKYWARN

Coordinator - Mark Shaffer 317-242-3617

E-mail - n9gdr@iquest.net

Radio Amateur Civil Emergency Service

Dave Crockett 317-390-2447

 $E\text{-mail} - \underline{ddc@iquest.net}$

National Weather Service Northern Indiana IMO Amateur Radio Coordinator – Patrick Murphy 574-834-1104

E-mail - kb8qev@usa.net

Emergency Alert System

Chairman Indiana SECC - George Molnar Jr. 574-631-1616

E-mail - gmolnar@nd.edu

National Weather Service Northern Indiana 7506 E 850 N Syracuse, IN 46567 Phone: 574-834-1104

On the Web http://www.crh.noaa.gov/iwx

